

REMARKS

An Office Action was mailed on July 22, 2004. Claims 1 - 18 are currently pending in the application, with claims 6 - 9 and 14 - 17 having been withdrawn from consideration. Applicant amends the title of the invention. No new matter is introduced.

CONSIDERATION OF IDS

The Examiner indicates that the Information Disclosure Statement (IDS) of April 11, 2002 was misplaced from the application file and thereby not considered. Applicant encloses a copy of the IDS of April 11, 2002 with the present Response, and respectfully requests that the IDS of April 11, 2002 be considered.

OBJECTION TO SPECIFICATION

The title of the invention is objected to as being non-descriptive. Applicant amends the title to read "OPTICAL DISK DEVICE WITH SLED DRIVE DECISION MEANS", and respectfully requests that the objection be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

Claims 1 - 3, 5 and 10 - 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,633,520 to Song in view of Japanese Patent Publication No. 63-161538 to Yamada and Japanese Patent Publication No. 64-035731 to Kanda et al. (the two Japanese publications were disclosed by the Information Disclosure Statement of April 2, 2002). Claims 4, 13 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Song in view of Yamada, Kanda and the Examiner's official notice. Applicant respectfully traverses these rejections.

In independent claim 10, Applicant claims:

10. A control method for an optical disk device that writes on and/or reads from an optical disk information by focusing a light spot from an optical pickup onto the optical disk, and includes a tracking adjustment system that performs tracking adjustment of said optical pickup with respect to said optical disk, a sled adjustment system that adjusts a sled position of said optical pickup, and a control means that controls said tracking and sled adjustment systems, wherein said sled adjustment system and said tracking adjustment system are controlled independently,

wherein said control method comprising:

an offset value acquisition step that detects at prescribed intervals a tracking drive signal output from said tracking adjustment system and acquires signal values of the tracking drive signal as tracking drive offset values;

an offset representative value computation step that computes an offset representative value based on multiple tracking drive offset values for one lap of said optical disk that are acquired by said offset value acquisition step;

an offset value comparison step that compares an offset center value, which is the tracking drive offset value in the state in which no tracking adjustment control is performed, and the offset representative value computed by said offset representative value computation step; and.

A sled drive decision step that decides, based on the comparison result by said offset value comparison step, whether to drive said sled adjustment system.

Song discloses a method and apparatus for controlling a disk drive sled during fine search operations (see, e.g., abstract of Song). The disk drive disclosed by Song provides tracking, sled and spindle controls (see, e.g., FIG.2 of Song). The Examiner acknowledges that Song fails however to disclose or suggest the slider control method claimed by Applicant, and asserts Yamada and Kanda as disclosing the missing elements of Applicants' claimed invention. Specifically, the Examiner suggests that Yamada discloses "slider control predicated upon averaging track error signals", and that Kanda discloses "offset control ability".

Yamada discloses a tracking controller that averages tracking error signals and uses an average tracking error signal to drive a slider servo (see, e.g., abstract of Yamada). According

to the method of Yamada, by averaging the tracking error signal over a complete cycle of the disk, tracking error due to eccentric movement of the disk is eliminated.

However, unlike Applicant's claimed invention, the method of Yamada does not make a sled drive decision by comparing an offset center value, which is the tracking drive offset value in the state in which no tracking adjustment control is performed, with an offset representative value, which is based on multiple tracking drive offset values during one lap of the optical disk. Rather, in the method of Yamada, adjustment is performed without comparison to an offset center value by simply zeroing the offset representative value. In sharp contrast, Applicant's claimed method more precisely accounts for eccentricity variations unique to each optical disk drive.

Kanda discloses an automatic tracking controller (see, e.g., abstract of Kanda). The central position of an objective lens 7 is determined, an associated signal is produced by photodiodes 12a, 12b with reference to surface of the lens 7, and the signal is stored. When the difference between the stored signal and a current signal exceeds a predetermined value, a driving motor 15 is engaged to drive an associated sled system. While Kando teaches comparing a current signal value to a stored signal value, unlike Applicant's claimed invention, Kando fails to teach comparing an offset center value with an offset representative value, where both values are based on multiple tracking drive offset values determined for one lap of said optical disk. Rather, Kando teaches comparing signals generated by photodiodes 12a, 12b, which in distinction to Applicant's claimed invention are not tracking error signals of the disk.

For these reasons, Applicant respectfully submits Applicant's independent claim 10 is not made obvious by the combination of Song, Yanada and Kanda, and is therefore in condition for allowance. Applicant substantially re-applies his arguments with respect to independent claims 1

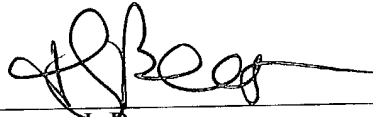
and 18 to submit that independent claims 1 and 18 are not made obvious by the combination of Song, Yanada and Kanda, and are therefore allowable. As claims 2 - 5 and 11 - 13 respectively depend from allowable claims 1 and 10, Applicant further submits that claims 2 - 5 and 11 - 13 are allowable for at least this reason.

CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1 - 5, 10 - 13 and 18, consisting of independent claims 1, 10 and 18, and the claims dependent therefrom, is in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,



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